



Winston H. Hickox  
Agency Secretary

# Air Resources Board

Alan C. Lloyd, Ph.D.  
Chairman

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Gray Davis  
Governor

Mail-Out #MSO 2001-10

August 9, 2001

TO: ALL OFF-ROAD MOTORCYCLE MANUFACTURERS  
ALL ALL-TERRAIN VEHICLE MANUFACTURERS  
ALL OTHER INTERESTED PARTIES

SUBJECT: CERTIFICATION GUIDELINES FOR 2001 AND LATER MODEL-YEAR  
(MY) OFF-ROAD MOTORCYCLES (OFMCs) AND ALL-TERRAIN  
VEHICLES (ATVs)

In December 1998, the Air Resources Board (ARB) amended the emission standards and test procedures for on-road motorcycles (ONMCs), OFMCs and ATVs. These amendments were approved by the Office of Administrative Law (OAL) in October 1999. For OFMCs and ATVs, the amendments include the allowance for vehicles that do not meet the emission standards to be certified for limited use in California. The emission standards and test procedures for OFMCs and ATVs that are certified as meeting the emission standards were unchanged. This Mail-Out provides an update of the ARB's certification guidelines for OFMCs and ATVs. Certification guidelines of 2001 and later MY ONMCs are provided in a separate Mail-Out (Mail-Out #MSO 2001-08, dated July 9, 2001).

A. For certification of OFMCs and ATVs that do not meet the emission standards, the 1-page application format described in Mail-out #MSO 99-04 for such non-compliant vehicles remains in effect.

B ARB's guidance for certification of emission-compliant OFMCs and ATVs was first described in Mail-Out #96-16. ARB's policies described in Mail-Out #96-16 for certification of emission-compliant OFMCs and ATVs remain effective.

C. For certification of emission-compliant ATVs that use the optional test procedures of small off-road engines (SOREs), the ARB's intent and policy for such certification to be applied to the full vehicle, not just the engine that powers such vehicles, is clarified below.

Under the current, optional engine certification allowance, a manufacturer certifies and produces engines for an original equipment manufacturer (OEM) of emission-compliant ATVs. The OEM does not have to recertify its ATVs. This may possibly lead to engine stockpiling, and has resulted in the model year of the ATVs being different from that of their engines. Model year discrepancies present difficulties for ARB enforcement activities, and inequity concerns because these engine-certified ATVs may not comply with the current standard for the vehicle's model year. Further, the ARB made clear in its rulemaking for ATVs that the SORE test procedure allowance was made solely to

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address test procedure concerns associated with ATVs, not to permit ATV engine certification separate from certification of the vehicle in total.

Consequently, the ARB will not permit certification of ATV engines separate from the certification of the ATVs. Under this new policy, the OEM will have to certify its ATVs although such certification can continue to be achieved, at the OEM's option, by testing the engine according to the SORE test procedures. The OEM will be the manufacturer of record and certificate holder. The OEM will have to coordinate with the engine producer to ensure that its ATVs comply with the emission standards and certification requirements including those pertaining to all production running changes implemented by the engine producer. Although the OEM may make arrangements for the engine producer to submit running change requests directly to ARB and update the OEM's affected certification applications, the OEM bears the ultimate responsibility for compliance with all certification requirements. The ARB staff will adhere to this new policy for all 2002 and subsequent MY ATVs (in order to provide lead time for the affected OEMs).

D. This Mail-Out also provides a new, streamlined application format (Attachment) for certification of emission-compliant OFMCs and ATVs. Applications prepared using the new format will permit an expedient review and certification approval by ARB staff.

New OFMCs and ATVs, whether they comply with the emission standards or not, are not legal for sale and use in California until they are certified by the ARB. Violations of the certification requirement will subject the manufacturer and selling dealers to enforcement actions by the State.

E. **Manufacturers are advised to ensure that the vehicle identification number (VIN) of their certified emission-compliant OFMCs and ATVs do not include the character "C" or "3" in the eighth (8<sup>th</sup>) position. Otherwise, mis-registration of such vehicles by the Department of Motor Vehicles will occur.**

**Concurrently, manufacturers are advised to ensure that the VIN of their certified non-compliant OFMCs and ATVs do use the character "C" or "3" in the eighth (8<sup>th</sup>) position. Violations of this VIN requirement for non-compliant OFMCs and ATVs will subject the manufacturer to enforcement actions by the State.**

Should you have further questions on this matter, please contact Ms. Veronica Longhi, Air Resources Engineer, On-Road Certification / Audit Section, at (626) 575-6642 or by e-mail at [vlonghi@arb.ca.gov](mailto:vlonghi@arb.ca.gov).

Sincerely,

/s/

R. B. Summerfield, Chief  
Mobile Source Operations Division

Attachment

## **Attachment**

### **Certification Summary Sheet: Emission Compliant Off-Road Motorcycles and All-Terrain Vehicles (1 of either 2 pages)**

- Blank Form in Word 97 Format, or
- Computer Print-Out Format

(Manufacturers are required to submit an electronic certification database for each engine family. For the OFMC and ATV electronic certification database program, please contact your assigned ARB certification staff. After completing the electronic certification database, the manufacturer must (1) send it electronically to the assigned ARB certification staff, and (2) print out a copy of the Certification Summary Sheet for submission with the application in lieu of filling out the Word 97 form.)

### **Supplemental Information Form (8 pages)**

### **Certification Database Form (12 pages)**

- 10 pages of computer screen format for data entry
- 2 pages of description of the data fields in the data entry form

CERTIFICATION  
SUMMARY



EMISSION COMPLIANT  
OFF-ROAD MCs & ATVs

MODEL-YEAR \_\_\_\_\_ MANUFACTURER: \_\_\_\_\_ EXECUTIVE ORDER: \_\_\_\_\_

1. EPA-Standardized Family Name: \_\_\_\_\_.
2. Vehicle Category: \_\_\_\_\_.
3. All Sales Codes within Engine Family: \_\_\_\_\_
4. All Engine Displacement(s) in Engine Family (units in cubic centimeters, (cc)):

1)	2)	3)	4)
----	----	----	----

5. Emission Standards Compliance: \_\_\_\_\_
6. If Corporate Averaging, list Designated Standard: \_\_\_\_\_ for \_\_\_\_\_.

7. Engine Design:
8. Intake, Fuel and Emission Control Systems (ECS):

a. Combustion Cycle:		a. Aftertreatment(s):	
@ Oil/Fuel Ratio		b. Sensor(s):	
b. Engine Type:		c. Fuel System:	
c. Valvetrain:		d. Exhaust Gas Recirculation:	
d. Total Number of Intake and Exhaust Valves (Ports) per Cylinder:		e. Method of Aspiration:	
e. Type of Engine Cooling:		f. Air Injection Reaction:	
f. Number of Cylinders:		g. Others:	
g. Cylinder Arrangement:			

9. Deterioration Factors (DFs): a. New Durability Testing: \_\_\_\_\_; Carryover from EF: \_\_\_\_\_;
- b. Durability Engine Model: \_\_\_\_\_ ID: \_\_\_\_\_; c. Durability Test Distance (km or hr): \_\_\_\_\_;
- d. Exhaust DF Values (no less than 1.000): HC: \_\_\_\_\_; NOx: \_\_\_\_\_; CO: \_\_\_\_\_.

10. Certification Test Engine Information: New Test: \_\_\_\_\_; Carryover from Engine Family: \_\_\_\_\_

- a. Test Vehicle or Engine: Model \_\_\_\_\_ ID: \_\_\_\_\_ Rated Power, hp: \_\_\_\_\_ @ \_\_\_\_\_ rpm; Test Date: \_\_\_\_\_
- b. Equivalent Inertia Mass (kg): \_\_\_\_\_ RLF(Nt): \_\_\_\_\_ Trans: \_\_\_\_\_ MPG: \_\_\_\_\_.
- c. Test Fuel Type: \_\_\_\_\_.
- d. Special Test Equipment (e.g., cooling fans, special couplings, etc.): Yes/No: \_\_\_\_\_. If Yes, describe below: \_\_\_\_\_

11. Certification Emission Levels: HC: \_\_\_\_\_ HC+NOx: \_\_\_\_\_ CO: \_\_\_\_\_.

Test No. and Type	Official Test Results in ( ): (raw data) (i.e., no DFs)			Certification Emissions in ( ): (i.e., with DFs applied)			
	HC	NOx	CO	HC	NOx	HC+NOx	CO
1.							
2.							
3.							
Standard:							
Remarks:							

Issue Date: \_\_\_\_\_ Revision Date(s): \_\_\_\_\_

ARB USE ONLY

Processed by: \_\_\_\_\_ Date: \_\_\_\_\_ Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_.

1. **EPA-Standardized Engine Family (EF) Name:** \_\_\_\_\_.
2. **Vehicle Category:** OFMC\_\_\_\_\_. ATV-chassis standard\_\_\_\_\_. ATV-engine standard\_\_\_\_\_.
3. **All Sales Codes within EF:**(check all applicable) California-Only\_\_\_\_ 50-State\_\_\_\_ 49-State Only\_\_\_\_\_.
4. **All Engine Displacements in EF:** (check one) in cubic centimeters (cc) \_\_\_\_\_ liters (L) \_\_\_\_\_.  
 1) \_\_\_\_\_ 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_.
5. **Emission Standards Compliance** (check one) Direct Standard\_\_\_\_ Corporate Average\_\_\_\_\_.
6. If Corp.Avg., list **Designated Standard:** \_\_\_\_\_ for (check one) HC (g/km) \_\_\_\_ HC+NOx g/bhp-hr) \_\_\_\_\_.
7. **Engine Design:** a. Combustion Cycle: (check one) 4-stroke\_\_\_\_ 2-stroke\_\_\_\_ @ Oil/Fuel Ratio\_\_\_\_\_.  
 b. Engine Type: (check one) Reciprocating\_\_\_\_ Rotary\_\_\_\_ Other (e.g., turbine, etc.) (specify)\_\_\_\_\_.  
 c. Valvetrain: (check one) Overhead\_\_\_\_ Side\_\_\_\_ Reed Valve\_\_\_\_ Piston Ported\_\_\_\_ Other (specify)\_\_\_\_\_.  
 d. Total Number of Intake and Exhaust Valves (Ports) per Cylinder: 2\_\_\_\_ 3\_\_\_\_ 4\_\_\_\_ 5\_\_\_\_ Other (specify)\_\_\_\_\_.  
 e. Type of Engine Cooling: (check one) Air\_\_\_\_ Water\_\_\_\_ Oil\_\_\_\_ Other (specify)\_\_\_\_\_.  
 f. Number of Cylinders: (check one) 1\_\_\_\_ 2\_\_\_\_ 3\_\_\_\_ 4\_\_\_\_ 5\_\_\_\_ 6\_\_\_\_ Other (specify)\_\_\_\_\_.  
 g. Cylinder Arrangement: (check one) Inline\_\_\_\_ Vee\_\_\_\_ Hori.Opposed (Flat)\_\_\_\_ Other (specify)\_\_\_\_\_.
8. **Intake, Fuel and Emission Control Systems**<sup>1</sup>: \_\_\_\_\_.
9. **Deterioration Factors (DFs):** a. New Dura.Testing: Yes\_\_\_\_ No\_\_\_\_ Carryover from EF:\_\_\_\_\_.  
 b. Dura. Eng. Model:\_\_\_\_\_ ID: \_\_\_\_\_ Durability Test Distance (km): \_\_\_\_\_.
- d. Exhaust DF Values (no less than 1.000): HC: \_\_\_\_\_ NOx: \_\_\_\_\_ CO: \_\_\_\_\_.
10. **Certification Test Engine Information:** New Test\_\_\_\_ Carryover from Engine Family \_\_\_\_\_.
- a. Test Vehicle or Engine: Model \_\_\_\_\_ ID: \_\_\_\_\_.  
 Rated Power, hp: \_\_\_\_\_ @ \_\_\_\_\_ rpm Test Date: \_\_\_\_\_.
- b. Equivalent Inertia Mass (kg): \_\_\_\_\_ RLF (nt): \_\_\_\_\_ Trans: \_\_\_\_\_ MPG: \_\_\_\_\_.
- c. Test Fuel: Gasoline: Indolene Clear\_\_\_\_ Calif. Ph2\_\_\_\_ Other (specify)\_\_\_\_\_.
- d. Special Test Equipment (e.g., cooling fans, special couplings, etc.): No\_\_\_\_ Yes/Describe: \_\_\_\_\_.
11. **Certification Emission Levels:** HC: \_\_\_\_\_ HC+NOx: \_\_\_\_\_ CO: \_\_\_\_\_.

(Enter level from confirmatory test, if any. If none, enter the highest value from all tests below.)

Test No. And Type2	Official Test Results (raw) (i.e., no DFs)			Certification Emissions (i.e., with DFs applied)			
	(check one) g/km _____, g/bhp-hr _____			(check one) g/km _____, g/bhp-hr _____			
	HC	NOx	CO	HC	NOx	HC+NOx	CO
1							
2							
3							
4							
Standard:							

**Remarks:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

1 Use SAE J1930 abbreviations. Examples: **NA** for natural aspiration; **TC** turbocharging; **SC** supercharging; **CAC** charge air cooling; **CARB** carburetion; **TBI** throttle body fuel injection; **MFI** multiport fuel injection; **SFI** sequential MFI; **DGI** direct gasoline injection; **AIR** secondary air injection; **PAIR** pulsed AIR; **EGR** exhaust gas recirculation; **O2S** oxygen sensor; **HO2S** heated O2S; **OC** for oxidation catalyst; **TWC** three-way catalyst; **OC+TWC** for OC plus TWC in one container; **EM** for Engine Modification (use if only **NA** and/or **CARB** are the only other selections in the field).  
 Use **prefix** "2" or "3" etc. in front of O2S, TWC, etc. to designate **parallel** arrangement, e.g., 2TWC for two TWCs in parallel. Use **suffix** "2" or "3" etc. to designate **series** arrangement, e.g., TWC(3) for three TWCs in three separate containers one after the other.

AIR RESOURCES BOARD    CERTIFICATION SUMMARY    EMISSION-COMPLIANT OFF-ROAD MCs & ATVs  
MODEL-YEAR\_\_\_\_\_ MANUFACTURER: \_\_\_\_\_ EXECUTIVE ORDER: U-M-\_\_\_\_\_.

Issue Date:\_\_\_\_\_ Revision Date(s):\_\_\_\_\_.

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Processed by:\_\_\_\_\_ Date:\_\_\_\_\_ Reviewed by:\_\_\_\_\_ Date:\_\_\_\_\_.

[illegible]

Page: \_\_\_\_\_  
 Issued: \_\_\_\_\_  
 Revised: \_\_\_\_\_  
 E.O.#: U-M-\_\_\_\_\_

**TABLE B: Justifications for AECDs**



Model Year: \_\_\_\_\_

Manufacturer Name: \_\_\_\_\_

Engine Family: \_\_\_\_\_

EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: \_\_\_\_\_

Issued: \_\_\_\_\_

Revised: \_\_\_\_\_

E.O.#: U-M- \_\_\_\_\_

S09. CATALYTIC CONVERTER: Yes \_\_\_\_\_ No \_\_\_\_\_

a. Type/Number/Arrangement (e.g., TWC, OC, 2TWC for 2 parallel, TWC(2) for 2 in series): \_\_\_\_\_

b. Location (e.g., close coupled, exhaust manifold, muffler): \_\_\_\_\_

c. Catalyst Manufacturer.: \_\_\_\_\_

d. Substrate: (i) Volume: \_\_\_\_\_ cc (ii) Construction: Pellet \_\_\_\_\_ Honeycomb \_\_\_\_\_

Number of cells: \_\_\_\_\_ (per cm<sup>2</sup>)

(iii) Composition: Ceramic \_\_\_\_\_ Metallic \_\_\_\_\_ (iv) Containment Method: Wire mesh \_\_\_\_\_ Other (specify) \_\_\_\_\_

e. Active Material:

Composition (Pt, Pd, Rh): \_\_\_\_\_ Ratio: \_\_\_\_\_ Loading (g/L) \_\_\_\_\_

**CONFIDENTIAL**

S10. PROJECTED SALES AND PRODUCTION PERIOD

**CONFIDENTIAL**

a. Projected California Annual Sales (units): \_\_\_\_\_ Projected 50 State Sales (units): \_\_\_\_\_

b. Estimated Production Period: Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

c. Estimated Introduction into Commerce Date: \_\_\_\_\_



Model Year: \_\_\_\_\_

Manufacturer Name: \_\_\_\_\_

Engine Family: \_\_\_\_\_

**EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO**

Page: \_\_\_\_\_

Issued: \_\_\_\_\_

Revised: \_\_\_\_\_

E.O.#: U-M-

S21. EMISSION-RELATED PART NUMBERS (Part numbers as stamped on the component, not the stock or inventory numbers, should be listed here.)

	Vehicle Model				
<b>Fuel System:</b>					
Carb/Mixer Assy.					
Fuel Injector					
Fuel Pump					
ECM					
Pressure Regulator					
Oxygen Sensor					
Other (specify)					
<b>Intake System:</b>					
Air Cleaner Element					
Intake Manifold					
Turbocharger					
Supercharger					
Charge Air Cooler					
Other (specify)					
<b>Ignition System:</b>					
Spark Plug					
Ignition Coil					
Ignition Control Valve Module					
Distributor					
Other (specify)					
<b>EGR:</b>					
EGR Valve Assembly					
Vacuum Control Valve					
<b>Air Injection</b>					
Control Valve					
Check Valve					
Solenoid Valve					
<b>Aftertreatment System:</b>					
Catalyst					
Exhaust Manifold					
<b>Crankcase System:</b>					
PCV Valve					

Model Year: \_\_\_\_\_

Manufacturer Name: \_\_\_\_\_

Engine Family: \_\_\_\_\_

EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: \_\_\_\_\_

Issued: \_\_\_\_\_

Revised: \_\_\_\_\_

E.O.#: U-M-\_\_\_\_\_

S22. LABELING: Emission label format approved? No \_\_\_\_\_ Yes \_\_\_\_\_ If yes, reference approval: \_\_\_\_\_

Sample label attached? No \_\_\_\_\_ Yes (put label in #S23) \_\_\_\_\_

S23. ADDITIONAL INFORMATION AND COMMENTS

--

Model Year: \_\_\_\_\_

Manufacturer Name: \_\_\_\_\_

Engine Family: \_\_\_\_\_

EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: \_\_\_\_\_

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Revised: \_\_\_\_\_

E.O.#: U-M-\_\_\_\_\_

S24. CORPORATE AVERAGE PLAN  
OFMC X ATV-chassis standard \_\_\_\_\_ ATV-engine standard \_\_\_\_\_  
SAMPLE FORM

**CONFIDENTIAL**

Manufacturer: ABC Motorcycle Co.  
2001 Model-Year Certification Plan and Estimated Production Volumes

(1)	(2)	(3)	(4)	(5)	(6)
Engine Family	Models	Estimated Production Volume (Units)		Designated HC or HC+Nox (g/km or g/bhp-hr)	(3) x (5)
		Family	Model		
YXZXC.700ABC		30		1.6	48
	711K		10		
	723B		10		
	747A		10		
YXZXC.850DEF		58		1.2	69.6
	850B		13		
	850C		45		
YXZXC1.34GHJ		39		0.9	35.1
	345X		23		
	450W		16		
YXZXC2.00KLM		54		0.8 (HC+NOx)	43.2
	200J		54		
<b>TOTALS:</b>		181			195.9

ESTIMATED CORPORATE AVERAGE EMISSION VALUE =  $\Sigma (6) / \Sigma (3) = 195.9/181 = 1.08 \text{ g/km} \leq 1.2 \text{ g/km}, \therefore \text{PASS}$



## ofmc\_mailoutform : Form



General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

Model Year:

1

Type of Submittal?:

2

Manufacturer:

3

Engine Family:

4

Vehicle Category:

5

Sales Location?:

6

California Projected Sales:

7

U. S. Projected Sales:

8

Record: 1 of 1



Select the correct model\_year of the engine family

NUM

ofmc\_mailoutform : Form

General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

Compliance Method:

12

Corporate Average Standard:

13

Designated Standard Type:

14

Designated Standard:

15

Engine Displacement 1 (cc):

9

Engine Displacement 2 (cc):

10

Engine Displacement 3 (cc):

11

Record: 1 of 1

Select the method for emission compliance (either direct or corporate averaging)

NUM



ofmc\_mailoutform : Form

General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

Engine Combustion Cycle:

16

Oil to Fuel Ration (only for 2-stroke):

17

Engine Type:

18

Cooling Medium:

21

Valvetrain Type:

19

Valves per Cylinder:

20

Cylinder Configuration:

23

Number of Cylinders:

22

Highest Horsepower in Engine Family:

24

Lowest Horsepower in Engine Family:

25

List All Models in Engine Family (model/EIM in kg)=[ i.e., Fastracer32/(158)]  
:::EIM are for CHASSIS Products only!!

26

Record:



1



of 1



NUM

Select the combustion cycle for engines in this engine family (as applicable)

ofmc\_mailoutform : Form

General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

**Emission Control System(s) Information for this Engine Family**

Aftertreatment Devices:

27

Sensors (oxygen sensor, etc.):

28

Fuel System:

29

Exhaust Gas Recirculation:

30

Method of Aspiration:

31

Air Injection Reaction:

32

Other Additional ECS Device:

33

Record: 1 of 1

Select the correct catalytic converter arrangement for this engine family (as applicable)

NUM

ofmc\_mailoutform : Form

General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

**Durability Vehicle and Service Accumulation**

New Deterioration Factors (DFs): 35

Carryover DF Engine Family Name : 36

Durability Engine Model / Name : 37

Durability Engine Id. Number : 38

Durability Test Distance (km) : 39

Durability Test Hours (hr): 40

Durability Plan Approval Number: 41

**Exhaust Emission Deterioration Factors (DFs):**

Exhaust Hydrocarbon DF: 42

Exhaust Carbon Monoxide DF: 44

Exhaust Oxides of Nitrogen DF: 43

Record: 1 of 1

Select NEW if this is a new durability engine family, otherwise C/O the durability engine data

NUM

## ofmc\_mailoutform : Form

General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

**Certification Emission Data Vehicle/ Engine Information**

Type of Emission Data Vehicle:	45	EDV Carryover Engine Family Name:	46
Emission Data Vehicle Model:	47	Emission Data Vehicle ID / Serial Number:	48
EDV Rated Horsepower:	49	EDV Rated RPM:	50
EDV Equivalent Inertial Mass:	52	EDV Road Load Force:	53
EDV Transmission:	54	Certification Test Fuel:	56
Special Test Equipment:	57		

**Certification Emission Levels { Exhaust Emissions }:**

Hydrocarbon Level (HC):	58	Hydrocarbon plus Oxides of Nitrogen Level (HC+NOx):	61
Carbon Monoxide Level (CO):	60		
Oxides of Nitrogen Level (NOx):	59	Test Date:	51

Record: 1 of 1

Select the emission data engine (NEW or C/O EDE type)

NUM

ofmc\_mailoutform : Form

General 1 General 2 General 3 E.C.S. D.F. E.D.V. Test 1 Test 2 Test 3 Additional

**Official Test Results  
(RAW DATA) -- No DFs****Certification Emission Values  
with DFs**

Type of Emissions Test: 33

EDV #1 -- Serial Number / ID: 64

Raw Exhaust HC: 65

Certification Exhaust HC: 68

Raw Exhaust CO: 66

Certification Exhaust CO: 71

Raw Exhaust NOx: 67

Certification Exhaust NOx: 69

Certification Exhaust HC+NOx: 70

Emission Unit: 62

Record: 1 of 1

Off-Road Motorcycle / ATV database

File

Edit

View

Insert

Format

Records

Tools

Window

Help

ofmc\_mailoutform : Form

General 1

General 2

General 3

E.C.S.

D.F.

E.D.V.

Test 1

Test 2

Test 3

Additional

Official Test Results  
(RAW DATA) -- No DFs

Type of Emission Test:

72

Raw Exhaust HC (g/km):

74

Raw Exhaust CO (g/km):

76

Raw Exhaust NOx (g/km):

75

Certification Emission Values  
with DFs

EDV # 2 -- Serial Number / ID:

73

Certification Exhaust HC (g/km):

77

Certification Exhaust CO (g/km):

80

Certification Exhaust NOx (g/km):

78

Certification Exhaust HC+NOx (g/km):

79

Record:

1

of 1

Select the correct type of emission test conducted for test data set #2

NUM

Off-Road Motorcycle / ATV database

File

Edit

View

Insert

Format

Records

Tools

Window

Help

ofmc\_mailoutform : Form

General 1

General 2

General 3

E.C.S.

D.F.

E.D.V.

Test 1

Test 2

Test 3

Additional

Official Test Results  
(RAW DATA) -- No DFs

Type of Emission Test: 31

Raw Exhaust HC (g/km): 83

Raw Exhaust CO (g/km): 85

Raw Exhaust NOx (g/km): 84

Certification Emission Values  
with DFs

EDV # 3 -- Serial Number / ID: 82

Certification Exhaust HC (g/km): 86

Certification Exhaust CO (g/km): 89

Certification Exhaust NOx (g/km): 87

Certification Exhaust HC+NOx (g/km): 88

Record: 1 of 1

Select the correct type of emission test conducted for test data set #3

NUM

ofmc\_mailoutform : Form

General1 General2 General3 E.C.S. D.F. E.D.V. Test1 Test2 Test3 Additional

Related E.F. Remarks / Comments:

Date issued:

91

Date revision:

92

96

HC Exhaust

93

Emission Standard:

CO Exhaust

94

Emission Standard:

HC+NOx Exhaust

95

Emission Standard:



Record:



1



of 1







Item No:	Name	Type	Size	Data Entry Type: Dropdown / type-in
1	model_year	Number (Long)	4	Dropdown
2	SUBMIT_CODE	Text	4	Dropdown
3	MFR_CODE	Text	50	Dropdown
4	ENG_FAM	Text	12	Type-in
5	Veh_Cat	Text	12	Dropdown
6	SALES_CODE	Text	5	Dropdown
7	PROJ_SALE	Number (Double)	8	Type-in
8	us_proj_sale	Number (Double)	8	Type-in
9	DISP_1	Number (Double)	8	Type-in
10	DISP_2	Number (Double)	8	Type-in
11	DISP_3	Number (Double)	8	Type-in
12	EM_STD_COMP	Text	3	Dropdown
13	CORP_AVG_STD	Text	4	Dropdown
14	DESIG_STD_TYPE	Text	6	Dropdown
15	DESIG_STD	Text	3	Type-in
16	ENG_COM_CYC	Text	11	Dropdown
17	OFR_2stroke	Text	2	Dropdown
18	ENG_TYPE	Text	15	Dropdown
19	valvetrain	Text	12	Dropdown
20	VALV_CYL	Text	1	Dropdown
21	COOL_MED	Text	5	Dropdown
22	CYLINDER	Text	1	Dropdown
23	CYC_CONFIG	Text	8	Dropdown
24	HI_ENG_hp	Number (Double)	8	Type-in
25	LO_ENG_hp	Number (Double)	8	Type-in
26	eng_models	Text	250	Dropdown
27	ECS_Aftertreatment_ID	Number (Long)	4	Dropdown
28	ECS_Sensor_ID	Number (Long)	4	Dropdown
29	ECS_FuelSystem_ID	Number (Long)	4	Dropdown
30	ECS_EGR_ID	Number (Long)	4	Dropdown
31	ECS_Aspiration_ID	Number (Long)	4	Dropdown
32	ECS_AIR_ID	Number (Long)	4	Dropdown
33	ECS_Others_ID	Number (Long)	4	Dropdown
34	ECS_EO_Genarate	Text	250	Type-in
35	DF_new?	Text	3	Dropdown
36	DF_EF	Text	12	Type-in
37	DF_eng_model	Text	32	Type-in
38	DF_eng_id	Text	20	Type-in
39	DF_eng_km	Number (Double)	8	Dropdown
40	DF_eng_hr	Number (Double)	8	Type-in
41	DF_approval_number	Text	15	Type-in
42	HC_DF	Number (Double)	8	Type-in
43	NOx_DF	Number (Double)	8	Type-in
44	CO_DF	Number (Double)	8	Type-in
45	CERT_EDE_type	Text	3	Dropdown
46	CERT_EDE_co	Text	12	Type-in
47	CERT_EDE_model	Text	15	Type-in
48	CERT_EDE_id	Text	20	Type-in
49	CERT_EDE_hp	Number (Double)	8	Type-in
50	CERT_EDE_rpm	Number (Long)	4	Type-in

51	CERT_EDE_date	Date/Time	8	Type-in
52	CERT_EDE_EIM	Number (Double)	8	Type-in
53	CERT_EDE_RLF	Number (Double)	8	Type-in
54	CERT_EDE_Trans	Text	2	Dropdown
55	CERT_EDE_MPG	Number (Double)	8	Type-in
56	CERT_TEST_FUEL	Text	10	Dropdown
57	CERT_TP_equip	Text	250	Type-in
58	CERT_HC_Hi	Number (Double)	8	Type-in
59	CERT_NOx_Hi	Number (Double)	8	Type-in
60	CERT_CO_Hi	Number (Double)	8	Type-in
61	CERT_HC+NOx_Hi	Number (Double)	8	Type-in
62	CERT_unit	Text	8	Dropdown
63	RawDATA_EDV_TYPE1	Text	3	Dropdown
64	RawEDV1	Text	20	Type-in
65	RawDATA_EDV_1_HC	Number (Double)	8	Type-in
66	RawDATA_EDV_1_NOx	Number (Double)	8	Type-in
67	RawDATA_EDV_1_CO	Number (Double)	8	Type-in
68	CertDATA_EDV_1_HC	Number (Double)	8	Type-in
69	CertDATA_EDV_1_NOx	Number (Double)	8	Type-in
70	CertDATA_EDV_1_HC+NOx	Number (Double)	8	Type-in
71	CertDATA_EDV_1_CO	Number (Double)	8	Type-in
72	RawDATA_EDV_TYPE2	Text	3	Dropdown
73	RawEDV2	Text	20	Type-in
74	RawDATA_EDV_2_HC	Number (Double)	8	Type-in
75	RawDATA_EDV_2_NOx	Number (Double)	8	Type-in
76	RawDATA_EDV_2_CO	Number (Double)	8	Type-in
77	CertDATA_EDV_2_HC	Number (Double)	8	Type-in
78	CertDATA_EDV_2_NOx	Number (Double)	8	Type-in
79	CertDATA_EDV_2_HC+NOx	Number (Double)	8	Type-in
80	CertDATA_EDV_2_CO	Number (Double)	8	Type-in
81	RawDATA_EDV_TYPE3	Text	3	Dropdown
82	RawEDV3	Text	20	Type-in
83	RawDATA_EDV_3_HC	Number (Double)	8	Type-in
84	RawDATA_EDV_3_NOx	Number (Double)	8	Type-in
85	RawDATA_EDV_3_CO	Number (Double)	8	Type-in
86	CertDATA_EDV_3_HC	Number (Double)	8	Type-in
87	CertDATA_EDV_3_NOx	Number (Double)	8	Type-in
88	CertDATA_EDV_3_HC+NOx	Number (Double)	8	Type-in
89	CertDATA_EDV_3_CO	Number (Double)	8	Type-in
90	Remarks_all	Text	250	Type-in
91	Date_issued	Date/Time	8	Type-in
92	Date_revision	Date/Time	8	Type-in
93	STD_CERT_HC	Text	4	Dropdown
94	STD_CERT_CO	Text	4	Dropdown
95	STD_CERT_HC+NOx	Text	4	Dropdown
96	sys_date	Date/Time	8	Type-in